

IN THE CLAIMS:

Please amend Claims 1-7, as follows. Note that all the claims currently pending in this application, including those not presently being amended, have been reproduced below for the Examiner's convenience.

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1. (Currently Amended) An image forming apparatus comprising:

an electrophotographic photosensitive member;

a charging means for applying voltage to a charge member to charge ~~the~~ said electrophotographic photosensitive member;

a ~~static~~ electrostatic latent image forming means for forming ~~a static~~ an electrostatic latent image on the charged electrophotographic photosensitive member; and

a developing means for developing the electrostatic latent image,

wherein ~~the~~ said developing means is provided with at least a developer holding member having a developer holding member surface and ~~for holding~~ configured to hold a developer containing a toner on its developer holding member surface and a developer regulating member for regulating configured to regulate a layer thickness of a developer layer on ~~the~~ said developer holding member,

wherein the said electrophotographic photosensitive member and ~~the~~ said developer holding member are set opposite to each other to form a developing section,

wherein the said developer regulating member regulates the developer to form a thin layer of the developer on the developer holding member surface, and

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wherein in the said developing section, the toner in the developer is transferred to the electrostatic latent image held on the surface of ~~the~~ said electrophotographic photosensitive member to form a toner image,

wherein a the peripheral speed of ~~the~~ said electrophotographic photosensitive member is 150 mm/second or more,

wherein the toner has a weight-average particle diameter of from 5 to 12 μm , and of the toner having a circle-equivalent diameter of 3 μm or more, particles with a circularity a of 0.900 or more, found according to formula (1) are present at a rate of 90% or more in a number-based cumulative value, wherein

$$\text{circularity } a = L0/L \quad (1),$$

(wherein $L0$ denotes the circumference of a circle having the same projected area as a particle image, and L denotes the circumference of the particle image), ~~are present at a rate of 90% or more in a number-based cumulative value,~~ and

wherein the toner satisfies the following conditions i) or ii):

i) a the relationship between a cut rate Z and a weight-average particle diameter X of the toner satisfies expression (2)

$$\text{cut rate } Z \leq 5.3 \times X \quad (2),$$

(wherein the cut ~~ratio~~ rate Z is represented by expression (3)

$$Z = (1 - B/A) \times 100 \quad (3),$$

where A represents a concentration, defined as (the number of particles/ μl), of all particles measured with a flow-type particle image analyzer FPIA-1000 manufactured by TOA MEDICAL ELECTRONICS CO., LTD., and B represents a concentration, defined as (the

number of particles/ μl), of the measured particles the circle-equivalent diameters of which are 3 μm or more), and

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wherein the a relationship between a number-based cumulative value Y of particles having a circularity of 0.950 or more and a weight-average particle diameter X of the toner satisfies expression (4):

$$Y \geq \exp 5.51 \times X^{-0.645} \quad (4),$$

(where X is in the range from 5.0 to 12.0 μm); and

ii) a the relationship between a cut ~~ratio~~ rate Z and a weight-average particle diameter satisfies expression (5)

$$\text{cut rate } Z > 5.3 \times X \quad (5)$$

and a the relationship between a number-based cumulative value Y of particles having a circularity of 0.950 or more and a weight-average particle diameter X satisfies expression (6)

$$Y \geq \exp 5.37 \times X^{-0.545} \quad (6),$$

(where X is in the range from 5.0 to 12.0 μm).

2. (Currently Amended) The image forming apparatus according to claim 1, wherein a the peripheral speed ratio of ~~the~~ said developer holding member to ~~the~~ said electrophotographic photosensitive member is 1.2 or less at ~~the~~ said developing section.

3. (Currently Amended) The image forming apparatus according to claim 1, wherein ~~the~~ said developer regulating member comprises an elastomeric member, and the free end of ~~the~~ said developer regulating member is brought into contact with ~~the~~ said developer holding member on.

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the upstream side of said image forming apparatus relative to ~~the~~ said developing section in the rotation direction of ~~the~~ said developer holding member, forming the thin layer of the developer on ~~the~~ said developer holding member surface.

4. (Currently Amended) A ~~process-cartridge~~ process cartridge comprising:
an electrophotographic photosensitive member; a
charging means for applying voltage to a charge member to charge ~~the~~ said
electrophotographic photosensitive member; and a
developing means for developing an electrostatic latent image,
wherein ~~the~~ said process cartridge is used for with an image forming apparatus in which a
toner in a developer is transferred to ~~an static~~ the electrostatic latent image to form a toner image,
and the toner image is transferred to a transfer material to form an image, and is so constructed
as to be detachably mountable on the apparatus,

wherein said ~~the~~ developing means is provided with at least a developer holding member
having a developer holding member surface and configured to hold ~~for holding~~ a developer
containing a toner on its developer holding member surface and a developer regulating member
~~for regulating~~ configured and positioned to regulate a layer thickness of a developer layer on the
developer holding member,

wherein said ~~the~~ electrophotographic photosensitive member and ~~the~~ said developer
holding member are set opposite to each other to form a developing section,

wherein ~~said~~ the developer regulating member regulates the developer to form a thin
layer of the developer on ~~the~~ said developer holding member surface, and

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wherein in ~~the~~ said developing section the toner in the developer is transferred to the electrostatic latent image held on the surface of ~~the~~ said electrophotographic photosensitive member to form a toner image,

wherein ~~the~~ a peripheral speed of ~~the~~ said electrophotographic photosensitive member is 150 mm/second or more,

wherein the toner has a weight-average particle diameter of from 5 to 12 μm , and of the toner having a circle-equivalent diameter of 3 μm or more, particles with a circularity a of 0.900 or more, found according to formula (1), are present at a rate of 90% or more in a number-based cumulative value, where

$$\text{circularity } a = L0/L \quad (1),$$

(wherein $L0$ denotes the circumference of a circle having the same projected area as a particle image, and L denotes the circumference of the particle image), ~~are present at a rate of 90% or more in a number-based cumulative value; and~~

wherein the toner satisfies the following conditions i) or ii):

i) a the relationship between a cut rate Z and a weight-average particle diameter X of the toner satisfies expression (2)

$$\text{cut rate } Z \leq 5.3 \times X \quad (2),$$

(wherein the cut rate Z is represented by expression (3))

$$Z = (1 - B/A) \times 100 \quad (3),$$

where A represents a concentration, defined as (the number of particles/ μl), of all particles measured with a flow-type particle image analyzer FPIA-1000 manufactured by TOA MEDICAL ELECTRONICS CO., LTD., and B represents a concentration, defined as (the

number of particles/ μl), of the measured particles the circle-equivalent diameters of which are 3 μm or more), and

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a the relationship between a number-based cumulative value Y of particles having a circularity of 0.950 or more and a weight-average particle diameter X of the toner satisfies expression (4)

$$Y \geq \exp 5.51 \times X^{-0.645} \quad (4)$$

(where X is in the range from 5.0 to 12.0 μm); and

ii) a the relationship between a cut ~~ratio~~ rate Z and a weight-average particle diameter satisfies expression

$$\text{cut rate } Z > 5.3 \times X \quad (5)$$

and a the relationship between a number-based cumulative value Y of particles having a circularity of 0.950 or more and a weight-average particle diameter X satisfies expression (6)

$$Y \geq \exp 5.37 \times X^{-0.545} \quad (6)$$

(where X is in the range from 5.0 to 12.0 μm).

5. (Currently Amended) The ~~process-cartridge~~ process cartridge according to claim 4, which further has, and is combined as one unit with, at least one means selected from the group consisting of a ~~static~~ electrostatic latent image forming means for forming an electrostatic latent image on the charged electrophotographic photosensitive member, a means for transferring the toner image to a transfer material, and a cleaning means for cleaning the surface of ~~the said~~ electrophotographic photosensitive member after transfer.

6. (Currently Amended) The ~~process-cartridge~~ process cartridge according to claim 5,

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wherein a the peripheral speed ratio of ~~the~~ said developer holding member to ~~the~~ said electrophotographic photosensitive member is 1.2 or less at ~~the~~ said developing section.

7. (Currently Amended) The ~~process-cartridge~~ process cartridge according to claim 4,

wherein ~~the~~ said developer regulating member comprises an elastic member, and the free end of ~~the~~ said developer regulating member is brought into contact with ~~the~~ said developer holding member on the upstream side relative to ~~the~~ said developing section in the rotation direction of ~~the~~ said developer holding member, forming the thin layer of the developer on ~~the~~ said developer holding member surface.
